

1. A motor comprising:
  - a motor body;
  - an output shaft projecting from a front end of the motor body; and
  - a terminal coupled to the motor body, the terminal including,
    - a first portion extending substantially parallel to the output shaft at a location adjacent the motor body,
    - a bent section joined to the first portion, the bent section curving outward and away from the motor body such that the bent section maintains a position at least as far from the motor body as the first portion,
    - an elongated second portion carried by the bent section, the elongated second portion extending away from the first portion to define a gap between the first and second portions, and
    - a curved contact portion carried by the second portion, the terminal being arranged such that when force is applied to the contact portion in a direction towards the motor, the second portion moves elastically towards the first portion and the motor body.
2. A motor according to claim 1, wherein:
  - the terminal has an elastic force in a direction generally perpendicular to the output shaft; and
  - the contact portion of the terminal is positioned near a back end of the motor body.
3. A motor according to claim 1, wherein the terminal further includes a connector section coupled to a back end of the motor body, the connector section carrying the first portion and extending substantially perpendicularly to the output shaft.
4. A motor according to claim 1, wherein the terminal further includes a distal tip portion that is joined to the contact portion, and wherein the contact portion is curved such that the distal tip of the terminal is closer to the motor body than the contact portion to thereby present a smooth outer contact surface.
5. A motor according to claim 1, further comprising a weight eccentrically

secured to the output shaft so that the motor functions as a vibrating motor.

6. A mobile phone having the motor according to claim 5.

7. A motor assembly comprising:

a motor including,

a motor body;

an output shaft projecting from a front end of the motor body; and

a terminal electrically coupled to the motor body, the terminal including a first section positioned to the side of the motor body and a second section carried by the first section in a manner that defines a gap between the first and second sections, the second section including a contact portion and being arranged such that when force is applied to the contact portion in a direction towards the motor body, the second section moves elastically towards the first section; and

a holder that receives the motor body, the holder being configured so that the contact portion of the terminal is exposed through an opening in the holder, the holder further having registration surfaces that facilitate the freestanding placement of the motor between a first substrate surface and an opening second surface with the contact portion of the terminal in contact with an electrical contact on the first substrate surface to facilitate the electrical connection of the motor, whereby the motor may be installed and operated without requiring the motor assembly to be physically attached to any substrate structure.

8. A motor assembly according to claim 7, wherein:

the terminal has an elastic force in a direction generally perpendicular to the output shaft; and

the grounding portion of the terminal is positioned near a back end of the motor.

9. A motor assembly according to claim 7, wherein the terminal further includes a bent section that joins the first and second sections, the bent section curving outward and away from the motor body such that the bent section maintains a position at least as far from the motor body as the first section.

10. A motor assembly according to claim 9, wherein the terminal further includes:  
a connector section coupled to a back end of the motor body and extending substantially perpendicular to the output shaft, the connector section joining with the first section; and  
a distal tip portion that is joined to the contact portion; and  
wherein the contact portion is curved such that the distal tip of the terminal is closer to the motor body than the contact portion to thereby present a smooth outer contact surface.
11. A motor assembly according to claim 7, wherein the holder is formed from a rubber material.
12. A motor according to claim 7, further comprising a weight eccentrically secured to the output shaft so that the motor functions as a vibrating motor.
13. A mobile phone having the motor assembly according to claim 12.
14. A motor assembly comprising:  
a motor including a motor body, an output shaft projecting from a front end of the motor body, and a terminal electrically contacted to the motor body, the terminal including,  
a first portion positioned to the side of the motor body and extending substantially parallel with the output shaft;  
a bent section coupled to the first portion and immediately adjacent to the first portion, the bent section curving outwardly and away from the motor body such that the bent section maintains a position at least as far from the motor body as the first portion,  
a second portion coupled to the bent section, the second portion extending away from the first portion to define a gap between the first and second portions; and  
a curved contact portion carried by the second portion, the terminal being arranged such that when force is applied to the contact portion in a direction towards the motor, the second portion moves elastically towards the

first portion; and

a freestanding holder that receives the motor body, the holder being configured so that the contact portion of the terminal is exposed through an opening in the holder, the holder further having registration surfaces that facilitate the freestanding placement of the motor between a first substrate surface and an opposing second surface with the contact portion of the terminal in contact with an electrical contact on the first substrate surface to facilitate the electrical connection of the motor, whereby the motor may be installed and operated without requiring the motor to be physically attached to the either of the opposing surfaces.

15. A mobile phone having the motor assembly according to claim 14.

16. A motor comprising:

a motor body;

an output shaft projecting from a front end of the motor body; and

a power supply terminal electrically coupled to the motor, the power supply terminal having an elastic force in a direction generally perpendicular to the output shaft and being positioned near a back end of the motor body, the power supply terminal including,

a connector section coupled to a back end of the motor body and extending substantially perpendicular to the output shaft,

a first portion carried by the connector portion and extending substantially parallel to the output shaft,

a bent section coupled to the first portion and immediately adjacent to the first portion, the bent section curving outward and away from the motor body such that the bent section maintains a position at least as far from the motor body as the first portion,

an elongated second portion coupled to the bent section, the elongated second portion extending away from the first portion to define a gap between the first and second portion, and

a curved contact portion carried by the second portion, the power supply terminal being arranged such that when force is applied to the contact portion in a direction towards the motor, the second portion moves elastically towards the first portion.

17. A mobile phone having the motor according to claim 16.
18. A communications instrument comprising:  
a printed circuit board having an electrical contact;  
a lid positioned over the printed circuit board;  
a vibrating motor assembly press fit between the lid and the printed circuit board, the vibrating motor assembly including a motor body, an output shaft and a terminal, the terminal including a contact portion positioned generally to the side of the motor body near a rear end of the motor body that is opposite the front end of the motor body, the contact portion of the terminal engaging the electrical contact on the printed circuit board and apply an elastic force against the electrical contact.
19. A communications instrument according to claim 18, wherein the elastic force applied by the contact portion of the terminal is substantially perpendicular to the output shaft.
20. A communications instrument according to claim 18, wherein the communication instrument is a cellular phone.
21. A communications instrument according to claim 18, wherein the communications instrument is a pager.